information, much less obtain registration information from a plurality of forwarding engines. Also, the Examiner states that MCP 320 identifies the routing of the data, citing col. 13, lines 39-47, but does not appear to assert that MCP 320 identifies the plurality of forwarding engines based on registration information, and Applicant can find no evidence of such teaching in Pitcher et al.

The Examiner states that Pitcher et al. fail to teach of a plurality of forwarding engines used in the communication scheme of a router communication network and cites Steeves as teaching a plurality of forwarding engines. However, given that the Examiner has not explained how Pitcher et al. could teach any of the features recited in claims 1-7, 9-22, or 24-25, even if the Examiner's assertion regarding Steeves were true, it would not change the fact that Pitcher et al. fail to disclose any of the features recited in claims 1-7, 9-22, or 24-25 nor would it render obvious such features. Thus, Applicant submits that claims 1-7, 9-22, and 24-25 are in condition for allowance.

Regarding claims 2-5, the Examiner states that Pitcher et al. disclose: all members of a group providing identification information (Abstract), where there is interfacing to forwarding engines (col. 2, lines 38-43), the switch can update information in its report destination list (col. 7, lines 15-20), and a query as to whether or not a router is present (col. 7, lines 23-26). Applicant respectfully disagrees. Applicant submits that members of a multicast group providing information do not disclose providing control information for distributed routing maintenance such that the control information includes a control message that requests verification of present functionality of the at least one forwarding engine. Col. 7, lines 23-26, as cited by the Examiner, teaches away from the present invention, as set forth in claims 2-5. For example, while Pitcher et al. teach that "As group member queries are received from routers, the receiving port is added to the report destination list" (col. 7, 17-19) and that "Automatic discovery occurs as a result of the switch detecting router queries by snooping or listening to multicast traffic" (col. 7, lines 14-16). Thus, Pitcher et al. teach a passive "listening" technique, not a step of providing control information that "includes a control message that requests verification...." Thus, Applicant submits that claims 2-5 are in condition for allowance.

Regarding claim 6, Applicant respectfully disagrees. For example, the Examiner fails to show any evidence that the "destination list and or corresponding Dtag" are provided as control information to at least one forwarding engine of the plurality of forwarding engines for at least one of: distributed routing maintenance and a specific data forwarding operation. Moreover, the Examiner fails to show any evidence that Pitcher et al. teach "wherein when a specific data forwarding operation is indicated by the control information, performing the specific forwarding operation based on additional control

information provided in the control information."' Thus, Applicant submits that claim 6 is in condition for allowance.

Regarding claims 7 and 9, Applicant respectfully disagrees. While Pitcher et al. use the phrase "control information" in col. 18, lines 4-9, and col 14, lines 37-41, the Examiner provides no evidence that such "control information" is provided to at least one forwarding engine of the plurality of forwarding engines for at least one of: distributed routing maintenance and a specific data forwarding operation. Rather, the "control information" of Pitcher et al. appears to be used internally within a LAN card to process received cells (col. 14, lines 34-37). Thus, Applicant submits that claims 7 and 9 are in condition for allowance.

Regarding claims 10 and 11, the Examiner states that Pitcher et al. teach the flow of data from forwarding engines and cites col. 13, lines 40-44, in support of that assertion. However, Applicant respectfully disagrees. Applicant notes that the cited portion states that "Data flow management primarily involves the routing of cells over the backplane 902 and between ports, and the control of segmentation and re-assembly of packets to and from cells." Applicant notes that Pitcher et al. do not mention providing data or control information to a plurality of forwarding engines. Rather, Pitcher et al. appears to teach merely localized routing of cells in that particular context. Thus, Applicant submits that claims 10 and 11 are in condition for allowance.

Regarding claims 13-17, 19-22, 24, and 25, Applicant respectfully disagrees. Applicant notes, as mentioned above, that Pitcher et al. teach away from the control information including at least one status request, wherein the at least one forwarding engine provides a status response to the route computation engine in response to the status request. As noted above, Pitcher et al. teach, in col. 7, lines 14-19, a passive "listening" technique rather than the claimed invention as set forth in claims 13-15 and 19-20. Moreover, the Examiner has not provided any evidence of Pitcher et al. teaching at least one forwarding engine grouping, as set forth in claim 16, nor the features set forth in claims 17, 21, 22, 24, or 25. Thus, Applicant submits that claims 13-17, 19-22, 24, and 25 are in condition for allowance.

Regarding claims 8 and 23, the Examiner has rejected claims 8 and 23 under 35 U.S.C. §103(a) as being unpatentable over Pitcher et al. (U.S. Patent No. 6,370,142) in view of Steeves et al. (U.S. Patent No. 6,212,185) and further in view of Batz et al. (U.S. Patent No. 5,918,022). Applicant respectfully disagrees.

Regarding claims 8 and 23, Applicant agrees that Pitcher et al. fails to teach of a tunneling data type, but otherwise disagrees with the Examiner's assertions. Applicant notes that the Examiner has not provided any evidence that even a combination of the teachings of Pitcher et al., Steeves et al., and Batz et al. would yield the present invention, as set forth in claims 8 and 23. For example, the Examiner has not provided any evidence showing "wherein the registration information includes information describing couplings between the plurality of forwarding engines and routers," particularly when subject to the additional limitations of claims 1 and 7, from which claim 8 depends, or claim 18, from which claim 23 depends. Moreover, Applicant submits that, as claims 8 and 23 depend from claims for which Applicant already submits are in condition for allowance, Applicant further submits that claims 8 and 23 should be allowed. Thus, Applicant submits that claims 8 and 23 are in condition for allowance.

In conclusion, Applicant has overcome all of the Office's rejections, and early notice of allowance to this effect is earnestly solicited. If, for any reason, the Office is unable to allow the Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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